

THE NECESSITY FOR A DIFFERENT PARADIGM FOR ECONOMIC DEVELOPMENT



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Abstract

The paper is attempting to answer the following question: “Why a new paradigm for the economy and its science is badly needed nowadays?” The author are presenting some of the considerations regarding the principles of the new paradigm.

The thesis is that creating a rational and sustainable economy is one of the factors which will improve the structures of the society and will lay the fundamentals of a superior civilization.

Keywords: Rational economy, Paradigm of the rational and sustainable economy, Principles of the paradigms, Diads for balancing

Introduction

The danger of a real collapse of the civilization requires a multi vector quest of the genuine reasons for the global crisis but not only a limited number of factors. A pressing one is the calls for a more rational economy. Very important problems also are the food crisis, the energy shortages and climate change and many others. We suggest that with new logics and strategic activities the world artificial systems have to be inscribed in the environment with less possible expenditures of money, energy and other strategic recourses of physical and non physical nature. There is no doubt that the economy needs a new paradigm. It has to stress the sustainable and long range terms development.

1. The change of the paradigm of the economy and its science

The paradigm of the economy and its science has to be not only consensual, but also a base for determination of different strategies concerning every sector of the society. It could also play the role of the integrator of the system of society.

On the one hand the new paradigm of the development of society and of its main sectors – the economy - is a public treaty *sui generis*. On the other hand the new paradigm has to be understood by a critical mass of scientists and managers, to influence and lead the population's thinking and actions and the nation at a whole. At the end of the day everybody has to be aware of it!

This context imposes the outlining of the rational economy paradigm and its science and the major strategic axes and trajectories which have to be followed by the replacing and the removal of the old one.

One of the reasons for the irrational development of the economy are the lack of a critical mass of modern and prospective thinking nationally responsible institutions, scientists, strategists and civil society organizations (CSO). Of course here have to be mentioned also the inadequate actual paradigms of the economy and its science development.

The lack of a multilateral considered paradigm for RSE pushes towards tactical goals formulation and tactical activities and for pursues short term effects. Acting as tacticians and not as strategists, the managers and the government bodies aim immediate results and they only make their own marketing and populist policies without taking into account the long range effects of certain actions and of inactivity (and especially of negative ones). Examples in this regard are the national strategic reference frames which were criticized for lack of logics and for non perspective thinking.

The economy itself was left to be managed by improvisations, by political forces with their narrow and even egoistic interests. In the states in transition there was not a critical mass or real civil society organizations would be aware about the problems and needs of a rational and sustainable economic development. Or from one side SCO have to know what to do, and from other – to have the capacity to do it and to initiate the necessary actions.

The operational horizons in the economic reality of Bulgaria and Romania, still new comers in the EU, nowadays are within the frame of one mandate of the government. There is also lack of integrated efforts for investing in visions regarding the long range future of the economy, in spite of the fact, that there periodically appear appeals and conclusions made in this regard. The EU required

National strategic frames are not based on a rational paradigm and on a long term holistic vision for economic development, on the available scientific potential of the Bulgarian and Romanian societies.

The rational and sustainable economy (RSE) model starts with the strategizing, in which include in one strategic thinking, visioning and strategic actions. The latter are shaped in different manager's documents including a variety of projects.

During the RSE creation process the combination of the 'up-down' and 'down-up' approaches is a must. The 'up-down' approach facilitates the preparation of documents as visions, strategies, projects in compliance with the similar documents valid for the European Union and for the nation levels. The 'down-up' approach supposes a variety of initiatives and entrepreneurial thinking of diverse stakeholders to be launched.

We also believe that the basis and starting points of the new paradigm are such approaches as networking, holistic, future-oriented thinking etc. All those are opposite to the reductionistic approach. Instead of using the principle «divide et impera» the new paradigm replaces it with the principle «*integrate and develop*» – or «*integra et empera*».

One national economic system could be rational by itself but to lack the dimension of sustainability. In this regard it saves money for protection of the natural environment, which acts are harmful not only for the present one, but also for the global ecosystems, for the climate change and as a whole - for the next generations. The latter also badly needs the environmental components and datum. In this regard there is the well known slogan *"We have not inherited this land from our fathers, but we have borrowed it from our children. So it is our duty to preserve it and to protect it"*.

One prospective oriented rational and sustainable economy (PORSE) needs as a basis a *Future-oriented Paradigm for Rational and Sustainable Economic Development* (FOPRED). It is especially required for an authentically realized integration process in the frame of the European Union. On one side precisely this membership pushes the development of an adequate model for a rational and sustainable economy. On the other side such a model will preserve to a certain extent the national economic identity. On a third side it would lead to strategic thinking regarding the fundamentals of the RSE - the development of different business systems.

The RSE model realisation has to use the principle of economic streamlining which will facilitate the rearrangements of the economy and priorities and would evaluate the present scientific achievements. And also to find out what kind of decisions concerning the improvements of the economy has to be made.

We believe that at the time being it is necessary to start the structuring of the FOPRED. It has to be based on an objective law of the RSE formation and development. We think that its formulation could sound like this: *“Behind every important for the society (business) systems development conventional project, there could be alternatives with higher degrees of nature preservation and with more rational decisions and real benefits”*. For respecting this law more systemic efforts have to be made. The pursuing for long range periods of nature friendly technologies is another task of the rational economy.

We also believe that the formulated law imposes every business system to involve itself in quests of possibilities for rationalization of its efforts and spending, and also for looking for alternatives of the present variants for development offered.

FOPRED imposes a new configuration of the diads as:

- “Rational economy and moderate social welfare” ↔ “Non rational economy with very good well-being for a part of the society and with very small benefits for the greater part of the society as a whole”.
- “Now and here (*hic et nunc*) thinking and activities and immediate effects realization ↔ “Not now and here thinking and activities”.

The main question of the FOPRED is „How do the economic structures and present situation have to be changed in the perspective of a twenty years period, to say till 2027 r. In this regard FOPRED will serve as an orienteer for restructuring and for determination of rational investments policy. Presently it is reported that the investment in Bulgarian and Romanian economies are growing. But the problem is how many of them are sustainable? Perhaps the two countries are competing for foreign investments no matter of what kind, and they are aiming economic growth at any price!

FOPRED states, that every business system has a multitude of possibilities to decrease the damages over the nature and society and to invest in efforts parallel with the ambition to preserve the quality of the economy’ functioning and development.

The construction of an adequate paradigm for economic development, regarded every nation’s contribution to the holistic European Union economy improvement, means that the winners will be every national society as a whole and every national economic system. Every separate society will achieve the status of a really democratic one and in which the final beneficent is the population, but not the economic and the political elite. The paradigm is a “back to the basics of the economy” return, but using future-oriented thinking and new tools.

The impact of the new paradigm on different sectors of the society could be systematized in the following network – figure 1.

In the existing paradigm for economic development the efforts are done to balance the classical diad „Efforts (expenditures)” ↔ *Results*”. Many times it excludes the comprehensive (integrated) evaluation of damages/losses, and risks; next generations missed opportunities due to the irrational economic heritage left. In this sense the FOPRED has to be developed and shaped at least as a **poliad**. The latter has to include: 1) „Efforts (present and future)” + 2) „Expenditures (present and future)” + 3) „Benefits (present and future)”, + 4) „Risks (present and future)” and „Damages /Losses (present and future)”. The main knots of that poliad are shown in figure 2.

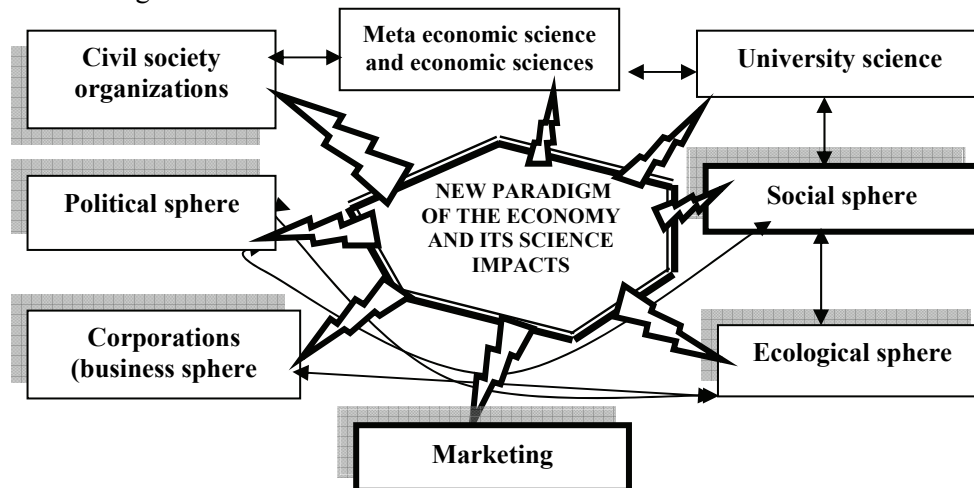


Figure 1

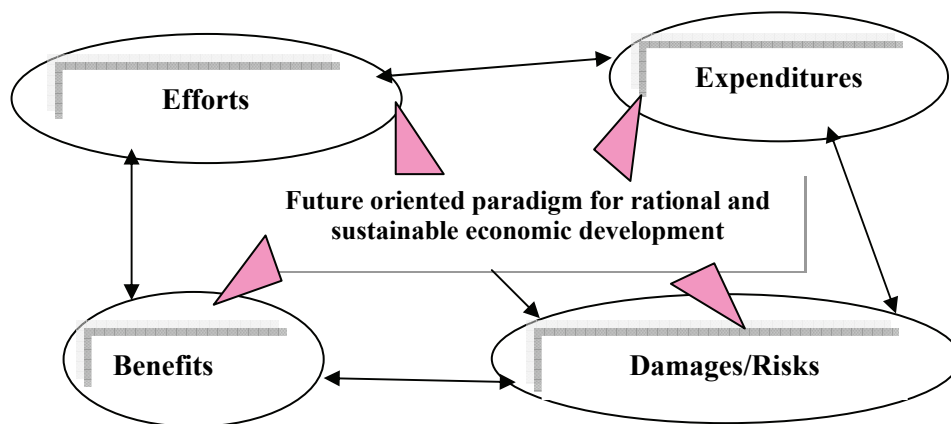


Figure no. 2

In this poliad important is the principle „*the benefits have to be much greater than the damages and they have to be clearly determined for very long periods*”. (We have in mind also the fact, that no one ecological system owns the property of the absolute efficiency). There always are wastes, losses, a certain degradation and pollution of the environment, and also accumulation of harmful substances. But the decreasing and eliminating them is a real challenge for the theoretical sciences and practical research and development organizations and universities.

Damages and risks always exist, but for nuclear power plants (NPP) from the present generations they are many times more than the benefits. Or in this case the benefits are for certain periods (excluding very large infrastructural projects as strategic bridges, highways etc.), but the harmful effects accumulated (as radioactive wastes) last for hundred and even for thousands and up thousand years. In the *Environment Impact Evaluation Reports* required the latter are not mentioned as damages. And in the case of the Bulgarian Belene Nuclear power plant (NPP) there are stated great benefits for short range periods. But as a matter of fact, the situation from very long perspective de facto is opposite.

In this regard the concept of FOPRED could be associated with efforts for finding the best balance in the analytical diad „Interests of the society (short, medium, long term)” \rightleftharpoons „Interests of the governing formations, political parties, cliques, groupings etc”.

The new paradigm also requires integrated profiles of the important projects to be done. The diad itself imposes in this regard a profile of a nuclear power plant to be done. It could have a shape as the one shown in figure 3.

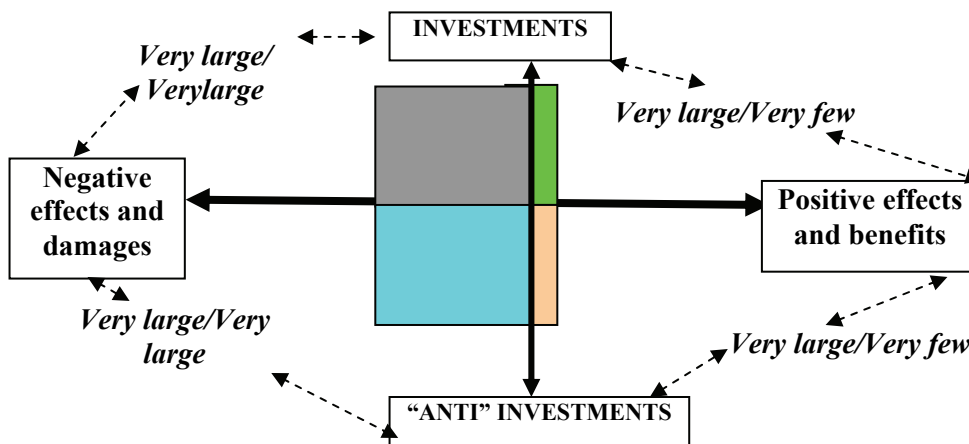


Figure 3

2. For a configuration of the economic science paradigm

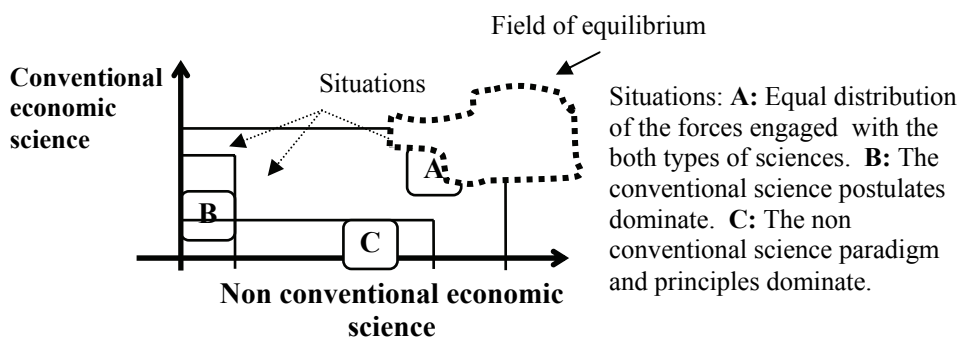
The modern and especially the postmodern economic science have to guide, to lead and to press the economic systems rationalization on different levels. To do so, the economic science itself has to be transformed, to adopt a different paradigm.

The macro paradigm of the economic science has to change its concepts and leading principles. Some examples regarding the replacement to ones (old) principles with others (new) are systematized in the next table 1.

Table 1

<i>Leaving behind principles associated with the old paradigm</i>	<i>Principles of the new paradigm</i>
<ul style="list-style-type: none"> * The “divide et impera” * The scholastic thinking * The senseless generalization * The present’s oriented thinking etc. 	<ul style="list-style-type: none"> * The “integrate and develop” * FROM future TO present; * Normal life in future for the present younger generation and for the next generations etc.

One task of the new paradigm of the economic science is to find balances in some important diads. Every one of them has to show not a “point of equilibrium” but “fields of equilibrium”. An example in this regard is the diad „Conventional economic science” (connected with the existing paradigm) and „Modern (non conventional) economic science” (which denies the existing paradigm, inertness in thinking and starts from future towards present to the future). That diad could be outlined in the following way:



We regard the economic science as a network with separated but connected knots of different disciplines. They complement each other and for their transformation a

universal (and heuristic) model could be used. It gives the general idea about the streamlining the economic science system) and its model is shown in Figure 4

In the model the things which have to be or kept (C), or added (A1 and A2) or to be left behind (B1 and B2) are as follows: knowledge, principles, theories, ideas, practices etc.

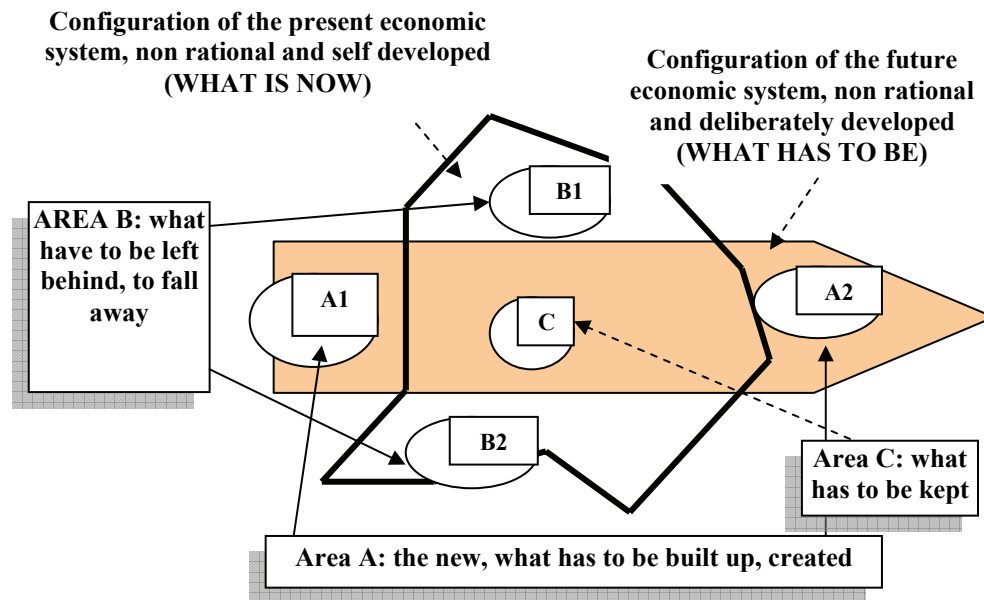


Figure 4

In the economic science some of the diads which have to be observed carefully also include as follows: „Theoretical economic science \leftrightarrow Practical (empirical) economic research; „Descriptive economic science \leftrightarrow Prescriptive economic science” etc.

3. For rational energy intensive production and consumption paradigm

Such a paradigm is very urgent for the present conventional energy resources crisis. The new energy paradigm (NEP) puts accents upon:

- * The sectors of energy production and energy consuming.
- * The marketing energy chain as a whole.
- * The interactions between different sectors of the national economy etc.

The NEP is looking for prospective models for sustainable development of the integrated system „Economy \leftrightarrow Environment”. That means not only present

needs of energy but also and future effects of problematic productive systems as nuclear power plants to be taken into account. The NEP connects the economic development with the progress achieved in the process of environment conservation (not the reducing but the maintaining its quality. Unfortunately many large systems do not have such strategic goals and aspirations. In this regard even the policy of the European Union itself is heterogeneous. The actual energy policy of EU instead of being unified in higher degree at the time being, *is an opportunistic one*. It is also not comparable with for example the well settled *Common Agriculture Policy - CAP*). It is necessary that a *Common energy policy - CEP* be formulated on the basis of the FOPRED and on the principle of energy production and consumption rationalisation. That is a problem for the EU as a whole.

The CEP has to include the principles of the balanced energy mix and to follow the trajectory: **FROM** „Constantly increasing production and consumption of energy” **TOWARD** „The increasing the energy intensity in all sectors of the society” **TILL Carbon and nuclear wastes neutral economy**, which have to decrease and even to stop the emissions and wastes of harmful substances damaging the components of the nature, the ecological systems and threaten the human health.

Some of the strategic conceptual diads in the energy sector search the best symmetrical or asymmetrical situations among diads as:

- a) Conventional sources of energy ↔ Non conventional sources of energy.
- b) Centralized and large energy producing systems ↔ Decentralized energy producing systems on the basis of a broader and much diversified energy mix.

In the rational energy mix balance has to be in favour of renewable and non conventional (intensive and saving energy) technologies.

It also has to be taken into account that the developed countries appreciate more and more the pure air, non megalomaniac constructions, the conservation and the sustainable use of such a natural datum as rivers, landscapes and many others. Well marketised activities regarding for example “*Nature 2000*” for preserving large territories could change the image of a country in a positive way. We have to have in mind the presumption that the ecology is an important business but the process of reckoning this fact in Bulgaria and Romania is very slow and difficult. Especially for Bulgaria the natural datum is one of the most important resources. In this regard the paradox is that if the regional strategies are more conservative, it is better for the sustainability of the country as a whole.

Presently different stakeholders face alternative variants (paradigms) of energy production as:

Variant 1: Realization of the projects of the present (for nuclear technologies it is

the second) generation – the case of the Belene NPP.

Variant 2: For nuclear power stations from next (third and fourth) generations.

Variant 3: Resolving the energy problems with alternative (energy saving) strategies, non nuclear and not carbon emitted technologies and broader energy mix.

In the case of projects as Belene NPP the reductionistic approach is used and therefore its justification is incomplete. From the FOPRED point of view the project itself is not motivated at all! Even at the early stages of its development there were not invested efforts for its critical analysis, and was not realized the fact that it is situated in a seismic area. And also that its environment impact analysis was the worst ever done. The project also serves the interests of a narrow group of stakeholders and shareholders but not of the society as a whole. There are attempts for separating justifications from ecological, economic, social points of view but they are superficial. Also the accent is put only on the positive effects and the negative ones are omitted, or disqualifies as negligible. It is because the government want to realize it at any price regardless of many and very serious considerations and arguments against it. The decisions for such projects also failed to take into account the damages not only during the construction, but also during the exploitation period. And in this particular case – the most important – the post exploitation period is after its active life cycle. In this regard we believe that the harmful and negative effects have to be taken into account as a whole. Their reckoning has also to cover not all the stages of the life cycle, but for many and many years beyond the decommissioning of the plant itself.

A model, which presents all the stages and registers some of them, is shown in the next table 2.

The paradox is that the problematic investment in the cited Belene NPP case will disappear with the time but the harmful waste will remain for hundreds of years. The main question is: “What is the integral benefit of such projects, how long will it be useful and when it will turn to be a heavy burden for the next generations? Would the benefits be enough to generate a resource for the potential damages to be met? If a state ultimately does not get profits why is there the irreversible destruction of unique nature datum done?

Table no. 2

The construction period	Exploitation period	Post exploitation period
Long process of projecting and re-projecting and construction; Damaging ecosystems and starting to provoke many other negative effects	Radioactive waste accumulation; risks from technological and human character; seismic risks, terrorist attack risks; Disturbances of the equilibrium with the environment and destruction of nature datum, conflicts with "Nature 2000" European network, Negative effects upon neighboring territories, unclear markets and so on.	Enormous capacities which demand "green field" liquidation and investments (although they are not producing energy anymore); Enormous problems with the conservation of highly radioactive waste; etc. The payment of the next generation for conservation without receiving from the plant and for the depositing of the radioactive waste etc.

On the other hand there are not taken into account the rational ideas and the justified protests of the citizen society organizations and other institutions and NGOs (or CSOs). All they try to press the officials to consider those problems laterally, from many sides, to get out from the narrow interests of different stakeholders and to listen to NGOs. We can also conclude that there are even passing each other regarding the visions of the official institutions and active social and ecological organizations. The paradox is, that in spite of the declaration that we all live in a democratic society; there is not a normal dialogue between those vital parts of the society.

Conclusions

The FOPRED could be a starting point for elaborating models for rational economic development at different levels as European Union, national, regional, local, business systems etc. They have to be a serious basis for the decision making process regarding the development of different business systems. In this regard those projects have to be designed in a different way, to be from new types – namely to save resources and energy and to be alternatives to the present conventional projects.

It is needed to be answered to the question: “How is the marketing of the rational economy paradigm (FOPRED) to be made and to be perceived as a social value?”

The new paradigm is one of the factors for creating universities-integrats. They have to build and to include networks of institutions and people for joint activities for launching innovations, for training and education; for research and for transfer on up-to-date technologies and knowledge; for brave and fearless criticism of ideas.